Before Intel VT FlexMigration and VMware* Enhanced VMotion Compatibility (EVC)

Processor	Group A	Group B	Group C	Group D
Dual Core	50xx (Dempsey)	51xx (Woodcrest)	52xx (Wolfdale)	
	70xx (Paxville)	72xx (Tigerton)		
	71xx (Tulsa)			
Quad Core		53xx (Clovertown)	54xx (Harpertown)	Nehalem
		73xx (Tigerton)		
Six Core			74xx (Dunnington)	

The same CPU features must be available to an application before and after Live migration. Due to CPU enhancements it was only possible to VMotion between CPU's within the same group.

Expanded CPU resource pool with Intel® VT FlexMigration assist and VMware's EVC

VMotion works between Group B, C ,D

Processor	Group A	Group B	Group C	Group D
Dual Core	50xx (Dempsey)	51xx (Woodcrest)	52xx (Wolfdale)	
	70xx (Paxville)	72xx (Tigerton)		
	71xx (Tulsa)			
Quad Core		53xx (Clovertown)	54xx (Harpertown)	Nehalem
		73xx (Tigerton)		
Six Core			74xx (Dunnington)	

Intel and VMware addressing the problem

FlexMigration is a new capability in Intel's 45nm CPU's (Harpertown, Wolfdale, Dunnington) and all future CPU's that makes VMotion between different generations of CPU's possible.

The feature is enabled through VMware's Virtual Center 2.5 Update 2 and ESX 3.5 Update 2

FlexMigration allows incompatible features between generations of CPU's to be masked.

(intel) vmware

VMotion Compatibility Matrix for Dell PowerEdge (PE) Servers

		Legacy	PowerEdge 8G		PowerEdge 9G (Intel® Xeon® 5000 series)	PowerEdge 9G (Intel® Xeon® 5100/5300 Series)	PowerEdge 9G III (Intel® Xeon® 5400/5200 Series)	PowerEdge 10G (Intel® Xeon® 7200/7300 Series)	PowerEdge 10G (Intel® Xeon® 7400 Series)	PowerEdge 10G (Intel® Xeon® 5400/5200 Series)
		PE 6650	PE 1850/1855/ 2850/6850	PE 6850 (Intel® Xeon® 7000/7100 Series)	PE 1950/1955/2900/ 2950	PE 950/1955/2900/ 2950	PE 1950/2900/2950	PE R900	PE R900	PE M600
Legacy	PE 6650	Yes	No	No	No	No	No	No	No	No
PowerEdge 8G	PE1850/1855/ 2850/6850	No	Yes	Yes	Yes	No	No	No	No	No
PowerEdge 8G	PE 6850 (Intel® Xeon® 7000/7100 Series)	No	Yes	Yes	Yes	No	No	No	No	No
PowerEdge 9G (Intel® Xeon® 5000 series)	PE1950/1955/ 2900/2950	No	Yes	Yes	Yes	No	No	No	No	No
PowerEdge 9G (Intel® Xeon® 5100/5300 series)	PE1950/1955/ 2900/2950	No	No	No	No	Yes	Yes	Yes	Yes	Yes
PowerEdge 9G III (Intel® Xeon® 5400/5200 Series	PE1950/2900/ 2950	No	No	No	No	Yes	Yes	Yes	Yes	Yes
PowerEdge 10G (Intel® Xeon® 7200/7300 Series)	PE R900	No	No	No	No	Yes	Yes	Yes	Yes	Yes
PowerEdge 10G (Intel® Xeon® 7400 Series)	PE R900	No	No	No	No	Yes	Yes	Yes	Yes	Yes
PowerEdge 10G (Intel® Xeon® 5400/5200 Series)	PE M600	No	No	No	No	Yes	Yes	Yes	Yes	Yes

Legend:

- Support for only 32-bit virtual machines
- Support for 32-bit and 64-bit Virtual Machines; supports Virtualization Technology (VT)
- VMotion works
- VMotion fails with CPU incompatibility error message
- VMotion works with Intel VT FlexMigration and VMWare Enhanced VMotion Compatibility. ESX version must be ESX 3.5 update 2